

**CLAIMS**

1. An apparatus configured to process a digital video signal comprising:

an input circuit configured to present a digital video signal comprising a plurality of frames;

5 a processing circuit configured to detect scene changes in said digital video signal by analyzing (i) a current one of said plurality of frames and (ii) two or more other frames; and

an encoder circuit configured to generate an encoded signal in response to said digital video signal and said scene  
10 changes.

2. The apparatus according to claim 1, wherein said two or more other frames comprise a first window of frames that are processed before said current frame and (ii) a second window of frames that are processed after said current frame.

3. The apparatus according to claim 2, wherein:  
said first window comprises a first fixed number of frames that are processed before said current frame; and

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said second window comprises a second fixed number of  
5 frames that are processed after said current frame.

4. The apparatus according to claim 3, wherein said processing circuit detects said scene changes by analyzing changes between said first window and said second window.

5. The apparatus according to claim 4, wherein said processing circuit detects said scene changes by analyzing changes between said second window and said first window.

6. The apparatus according to claim 1, further comprising:

a storage circuit configured to record said encoded signal.

7. The apparatus according to claim 1, wherein said input circuit is configured to generate said digital video signal in response to either (i) a stored signal, (ii) a captured signal, or (iii) a decoded signal.

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8. The apparatus according to claim 1, wherein each frame comprises  $1/30$  of a second.

9. The apparatus according to claim 1, wherein said transition signals comprise information used by said encoder to simplify generating said encoded signal.

10. A method for processing video, comprising the steps of:

(A) receiving a video signal comprising a plurality of frames;

5 (B) generating one or more transition signals in response to (i) a current one of said frames, (ii) one or more frames that are processed before said current frame and (iii) one or more frames that are processed after said current frame; and

(C) generating an encoded signal in response to (i) said  
10 video signal and (ii) said transition signals.

11. The method according to claim 10, further comprising the step of:

recording said encoded signal.

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12. The method according to claim 10, wherein step (A) generates said video signal in response to (i) a stored signal, (ii) a captured signal, or (iii) a decoded signal.

13. The method according to claim 10, wherein step (B) comprises:

generating field measures in response to said plurality of frames.

14. The method according to claim 13, wherein step (B) further comprises:

calculating a second order derivative of a first transition from a first scene to a second scene.

15. The method according to claim 14, wherein step (B) further comprises:

calculating a second order derivative of a second transition from a second scene to a first scene.

16. The method according to claim 15, wherein step (B) further comprises:

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calculating a first average of said one or more frames that are processed before said current frame.

17. The method according to claim 16, wherein step (B) further comprises:

calculating a second average of said one or more frames that are processed before said current frame.

18. The method according to claim 15, wherein step (B) further comprises:

calculating a statistical variation compared to said first and second averages.

19. The method according to claim 16, wherein step (B) further comprises:

generating a scene change indicator in response to said variation.

20. The method according to claim 10, wherein said transition signals comprise information used by an encoder to simplify generating said encoded signal.